WHAT IS CLAIMED IS:

1. A dry etching method for dry-etching a Cu-containing aluminum film on a substrate held in a chamber by introducing etching gas containing at least chlorine in said chamber to generate plasma,

wherein a gas stay time τ (=P · V/Q) is from 0.15 seconds to 0.30 seconds inclusive, P being a pressure in said chamber (unit: Pa), V being a volume of said chamber (unit: L) and Q being a total etching gas flow (unit: Pa·L/sec).

2. The dry etching method according to claim 1, wherein

said substrate is a wafer having a diameter of 20cm, and

the volume of said chamber is from 30L to 35L inclusive.

3. The dry etching method according to claim 2, wherein

the total etching gas flow is from 60mL/min (at the standard state) to 240mL/min (at the standard state) inclusive.

4. The dry etching method according to claim 1, wherein

said substrate is a wafer having a diameter of 30cm, and

the volume of said chamber is from 60L to 70L inclusive.

5. The dry etching method according to claim 4, wherein

the total etching gas flow is from 120mL/min (at the standard state) to 480mL/min (at the standard state) inclusive.

6. A dry etching method for dry-etching a Cu-containing aluminum film on a substrate held in a chamber by introducing etching gas containing at least chlorine in said chamber to generate plasma,

wherein a gas stay time τ ($=P \cdot V/Q$, where $0.93 \leqq P \leqq 1.86$) is from 0.15 seconds to 0.30 seconds inclusive, P being a pressure in said chamber (unit: Pa), V being a volume of said chamber (unit: L) and Q being a total etching gas flow (unit: Pa·L/sec).

7. The dry etching method according to claim 6, wherein

said substrate is a wafer having a diameter of 20cm, and

the volume of said chamber is from 30L to 35L inclusive.

8. The dry etching method according to claim 7, wherein

the total etching gas flow is from 60mL/min(at the standard state) to 240mL/min(at the standard state) inclusive.

9. The dry etching method according to claim 6, wherein

said substrate is a wafer having a diameter of 30cm, and

the volume of said chamber is from 60L to 70L inclusive.

10. The dry etching method according to claim 9, wherein

the total etching gas flow is from 120mL/min(at the standard state) to 480mL/min(at the standard state) inclusive.